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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/912,132 | 07/24/2001 | Tse-Hua Lan | US 010341 | 4007 |

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

DIEP, NHON THANH

ART UNIT PAPER NUMBER

2621

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 09/912,132 | Applicant(s) LAN ET AL. | |
| | Examiner Nhon T. Diep | Art Unit 2621 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6 and 8-12 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6 and 8-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/17/2006 has been entered.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Regarding claim 10, lines 1-2, claim 10 fails to specifically recite a computer readable memory medium for storing computer code, the computer readable memory medium comprising: a computer code for producing....Because of the missing computer, the claim is a program per se and is directed to computer readable memory medium

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 4-6 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al (cited in the previous Office Action), in view of Kranawetter et al (US 6,970,504).

Nakajima et al in an apparatus for decoding coded video data with reduced memory size, discloses the same method for decoding a video bitstream at a first resolution (fig. 8, el 41), comprising the steps of: producing residual error frames at the second lower resolution (fig. 8, el. 1-2-40) by performing an inverse discrete transformation on a pixel block of a known size (NXM) and sampling the signal at a predetermined rate to obtain a second resolution lower than the first resolution (fig. 10 A, second resolution KXM, where K, M are both less than N and col. 5, ln. 3-11, ln. 26-39); producing motion compensated frames at the second lower resolution (fig. 8, el. 5-6-7-8); combining the residual error frames with the motion compensated frames to produce video frames (output of el. 4, fig. 8); and up-scaling the video frames to the first resolution (fig. 8, el 41) as specified in claims 1, 10-12; the producing residual error frames includes performing an 8 X 8 inverse discrete transform to produce pixel values (col. 1, ln. 25 and col. 2, ln. 55) as specified in claim 2; the producing residual error frames include performing a 4 X 4 inverse discrete transform (col. 1, ln. 25-30 and col. 5, ln. 66 – col. 6, ln. 16 and fig. 10A) as specified in claim 4; the producing motion compensated frame includes scaling down motion vectors by a predetermined factor to produce scaled motion vectors (col. 5, ln. 19-21) as specified in claim 5; the motion compensation is performed based on the scaled motion vectors (col. 5, ln. 17-19) as

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specified in claim 6; the up-scaling is performed in the horizontal direction (col. 5, ln. 56-58) as specified in claim 8; and the up-scaling is performed in a same direction as down scaling in the residual error frames (col. 5, ln. 55-59) as specified in claim 9. Even though, Nakajima et al further discloses to use linear interpolation to recover eliminated pixel data; however, Nakajima et al does not particularly disclose up-scaling the video frames to the first resolution, wherein the up-scaling is performed by a technique of repeating pixel values as specified in claims 1, 10-12. Kranawetter et al teaches "after decompression by units 80, 82 and 84, the resolution of image information from memory 60 is reconstituted by unit 88 using a pixel repeat up-sampling process." (col. 19, lines 22-56). And therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Nakajima et al by using the pixel repeating up-sampling process to up-scale the video frames to the first resolution as taught by Kranawetter et al. Doing so would help to eliminate any mathematical operations associating with the linear interpolation process and save time for the up-scaling process.

Response to Arguments

5. Applicant's arguments filed 4/17/2006 have been fully considered but they are not persuasive. With regard to the applicants' argument that Nakajima fails to disclose that the reduced size pixel block is further sub-sampled to obtain a second resolution, as is recited in the claims (last line of page 5, - page 6, ln. 1). It is respectfully submitted that Nakajima does reduce pixel block from a first resolution (N X N) to a second resolution (K X M), where both K and M are smaller than N.

Conclusion

6. This is a RCE of applicant's earlier Application No. 09/912,132. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T. Diep whose telephone number is 571-272-7328. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ND
7/10/2006

A handwritten signature in black ink, appearing to read 'D. M. H. M.', is written over a horizontal line.

**NHON DIEP
PRIMARY EXAMINER**